

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST-7427
Dow Jones & Company, Inc. (The Wall Street Journal)

TABLE OF CONTENTS

INTRODUCTION.....	3
BACKGROUND INFORMATION.....	4
DESCRIPTION OF THE FACILITY.....	4
Industrial Processes.....	4
PERMIT STATUS.....	6
WASTEWATER CHARACTERIZATION.....	6
SEPA COMPLIANCE.....	6
PROPOSED PERMIT LIMITATIONS.....	6
TECHNOLOGY-BASED EFFLUENT LIMITATIONS.....	6
MONITORING REQUIREMENTS.....	7
OTHER PERMIT CONDITIONS.....	7
REPORTING AND RECORDKEEPING.....	7
OPERATIONS AND MAINTENANCE.....	7
PROHIBITED DISCHARGES.....	7
DILUTION PROHIBITED.....	7
NONROUTINE AND UNANTICIPATED DISCHARGES.....	7
GENERAL CONDITIONS.....	8
PUBLIC NOTIFICATION OF NONCOMPLIANCE.....	8
RECOMMENDATION FOR PERMIT ISSUANCE.....	8
REFERENCES FOR TEXT AND APPENDICES.....	8
Appendices.....	9
APPENDIX A—PUBLIC INVOLVEMENT INFORMATION.....	9
APPENDIX B—GLOSSARY.....	10

INTRODUCTION

This fact sheet is a companion document to the draft State Waste Discharge Permit No. ST-7427. The Department of Ecology (the Department) is proposing to issue this permit, which will allow discharge of wastewater to Lakehaven Utility District. This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State law (RCW 90.48.080 and 90.48.160) requires that a permit be issued before discharge of wastewater to waters of the state is allowed. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into public waters of the state. Regulations adopted by the state include procedures for issuing permits and establish requirements which are to be included in the permit (Chapter 173-216 WAC).

This fact sheet and draft permit are available for review by interested persons as described in Appendix A—Public Involvement Information.

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response.

GENERAL INFORMATION	
Applicant	Dow Jones & Company, Inc. PO Box 4189 Federal Way, WA 98063 King County
Facility Name and Address	The Wall Street Journal 600 South 334 th Street Federal Way, WA 98003
Type of Facility	Newspaper Publishing
Facility Discharge Location	Latitude: 47° 18' 09" N Longitude: 122° 19' 32" W
Treatment Plant Receiving Discharge	Lakehaven Utility District POTW
Contact at Facility	Name: Bruce Palkowetz, Production Manager Telephone #: (253) 661-8850
Responsible Official	Name: Bruce Palkowetz, Production Manager Title: Production Manager Address: 600 South 334 th Street Federal Way, WA 98063 Telephone #: (253) 661-8850 FAX #: (253) 661-8886

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

The Wall Street Journal facility is engaged in the publishing of the *Wall Street Journal and Barrons*. The operations conducted at the Federal Way facility are limited to the actual printing of the newspapers. The maximum rate of industrial discharge to the sanitary sewer is expected to be 2000 gallons per day. The photo processing portion of this flow is estimated to be a maximum of 400 gallons per day.

INDUSTRIAL PROCESSES

Origin of Silver-bearing Wastewater: Silver-bearing wastewater originates in the three film developers in the imaging room. Wastewater from the developer baths is treated in an Echo filter prior to being discharged to the sanitary sewer.

The fixer bath is recycled through a CSRS J1t-J4t electroplating system. Overflow from this system is run through two Mark 15 silver removal canisters arranged in series prior to joining the untreated effluent from the film developer. This wastewater is then treated in the Echo filter, prior to discharge to the sanitary sewer.

The rinse water from the developers is treated in an SS1000 filter prior to being treated in the Echo filter, and is subsequently discharged to the sanitary sewer.

Hallmark Refining services the silver recovery units on a quarterly basis.

The maximum total flow of silver-bearing wastewater from the photo-processing system is 2400 gallons per week. Based on six days per week of operation, the daily maximum flow from the photo-processing area is expected to be approximately 400 gallons per day.

Rate of Use of Photographic Film: Film is supplied in twenty-four inch wide rolls with a length of 200 feet each. Based on typical rate of roll utilization, plant personnel estimated that approximately 16,000 square feet would be used in a typical month.

Plate Processing Room: The Lithoplate plate processing machines employed in the Plate Processing Room are used for the development of the plates used in the printing process. The plates are composed of aluminum with a coating. The film developed in the imaging room is used to develop the plates used in the printing process. The areas of the coating on the plate which are exposed to light are hardened. The plate is then exposed to a developer solution (active ingredients: benzyl alcohol and sodium bisulfite) which removes the area of the plate which has not been exposed to light. The rinse water applied at the end of the process washes away a portion of the remaining chemical. The rinse water is discharged to the sanitary sewer. The application submitted by the Permittee indicated a maximum daily discharge to the sanitary sewer of 1100 gallons per day of wastewater related to plate processing. The main pollutant parameter associated with the rinse is the BOD associated with the alcohol. A finish coating is then applied to prevent grease from adhering to the plate. The active ingredient in the finish coat is sodium hexametaphosphate. As there is no rinse step following application of the coating, there is no reason to believe that the coating would enter the sanitary sewer by means of the waste stream in this room.

The plate processing machines are expected to be replaced in the near future. This may result in a significant decrease in the discharge of wastewater from this area of the plant.

Press Room: The press room contains several printing presses. The only source of wastewater from presses is the small amount of ink-bearing fountain solution which splashes onto the shields. Each press is equipped with a splash shield. A small flume with a width of approximately three quarters of an inch is located at the bottom of each shield. The fountain solution which reaches the flume passes to the sanitary sewer by means of a hose with a diameter of no more than one half inch. It is very likely that the greater part of the fountain solution utilized is absorbed by the newspaper itself. The permit application contained an estimate of 5-10 gallons per day as the range of discharge from this application.

Ink Storage: Black ink, as well as three colored inks, is employed in printing of the newspaper. The black ink is stored in a 25,000-pound tank, which has a volume of approximately 2800 gallons. Three smaller tanks hold approximately 2000 pounds of ink in each container. The three colors of ink employed are yellow, cyan, and magenta.

Chiller Wastewater: A heat exchange system located outside the building is associated with a water-cooled air compressor. This compressor is only used as a backup compressor and is run one time per month for maintenance purposes. Plant personnel stated that there was no periodic draining schedule for this cooling system, and to the best of their knowledge, it had never been drained. The main compressor used at this time is air-cooled. The air-cooled compressor was operating at the time of the most recent inspection.

Boiler Blowdown: The building is equipped with a small boiler. The nameplate does not state a rating of pounds of steam per hour on the boiler. However, the natural gas burner/blower with which the boiler was equipped had a labeled rating of 1.26 million BTU.

Total Flow to Sanitary Sewer: The sanitary sewer bill at this site is based on metered water supply with an adjustment made by subtracting the metered water supply for agricultural/landscaping use. Based on this billing data, the average nonagricultural flow to the sanitary sewer is approximately 2500 gallons per day. This includes wastewater originating from nonindustrial "domestic" applications as well as industrial uses.

Flow from the photo-processing area is not expected to exceed 400 gallons per day. Flow from the platemaking process is reported on the application to be no greater than 1100 gallons per day. Flow from the presses is small. Therefore, the total maximum daily flow from industrial sources is expected to be less than 2000 gallons per day.

The region's guidelines for permitting of photo-processing silver discharges are that a discharge of 250 gallons per day of silver-bearing wastewater justifies issuance of a state waste discharge permit. Records submitted by this company indicate that approximately 2400 gallons per week of treated silver-bearing wastewater are discharged. This plant runs six days per week (five *Wall Street Journals* and one *Barrons* each week). Therefore, the silver-bearing wastewater is discharged at a maximum of approximately 400 gallons per day, well above the Department's 250 gallon per day threshold for permitting. Therefore, it is recommended that the Department proceed to issue a permit for this facility authorizing discharge of silver-bearing wastewater. Normally, the AKART-based limitation for discharge of silver is 2.0 mg/L. However, at the request of Lakehaven Utility District, the District's local discharge limitation for silver (0.2 mg/L) has been placed in the permit.

PERMIT STATUS

This is a pre-existing facility. An application for a permit was submitted to the Department on May 12, 2000, and accepted by the Department on June 7, 2000.

The Department issued a Notice of Temporary State Waste Discharge Permit on October 27, 2000.

WASTEWATER CHARACTERIZATION

The concentration of pollutants in the discharge was reported in the permit application and in discharge monitoring reports. The proposed wastewater discharge is characterized for the following parameters:

The silver concentration in the raw fixer has been measured as 2400 mg/L based on information submitted by the Wall Street Journal. Silver concentrations in fixer effluent would almost certainly exceed a level consistent with AKART if untreated. However, all fixer wastewater is treated by means of silver removal cartridges at this site. Information submitted by the Wall Street Journal with its application indicated that silver concentrations were less than 0.1 mg/L.

BOD values in pressroom wastewater have been measured at 1000 mg/L. However, due to the small volume of wastewater discharged, there is little reason to conclude that the resulting mass of BOD would be of environmental significance.

SEPA COMPLIANCE

This is a preexisting facility with a pre-existing permit. Therefore, there is no requirement to complete a SEPA checklist for purposes of issuance of this permit.

PROPOSED PERMIT LIMITATIONS

State regulations require that limitations set forth in a waste discharge permit must be based on the technology available to treat the pollutants (technology-based) or be based on the effects of the pollutants to the POTW (local limits). Wastewater must be treated using all known, available, and reasonable treatment (AKART) and not interfere with the operation of the POTW.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

All waste discharge permits issued by the Department must specify conditions requiring available and reasonable methods of prevention, control, and treatment of discharges to waters of the state (WAC 173-216-110). The Department has determined that a well-maintained ion exchange cartridge system can be expected to achieve compliance with a silver discharge standard of 2.0 mg/L in the treated effluent. Therefore, a silver limitation of 2.0 mg/L was proposed to be placed in the proposed permit, at the time of entity review draft.

Subsequent to circulation of the entity review draft, Lakehaven Utility District informed the Department in its letter of July 3, 2003, that the District's Sewer Use Rules contained a local limit for silver of 0.2 mg/L. Therefore, the Department circulated the public notice of draft permit with a proposed silver limitation of 0.2 mg/L.

Pollutant concentrations in the proposed discharge with technology-based controls in place are not expected to cause problems at the receiving POTW such as interference, pass-through, or hazardous exposure to POTW workers, nor is it expected to result in unacceptable pollutant levels in the POTW's sludge.

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, and that effluent limitations are being achieved (WAC 173-216-110). Due to the modest flow resulting from this discharge, a monitoring frequency of four times per year is expected to be adequate to achieve these purposes.

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S3 are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges [WAC 173-216-110 and 40 CFR 403.12 (e),(g), and (h)].

OPERATIONS AND MAINTENANCE

The proposed permit contains Condition S.5 as authorized under Chapter 173-240-150 WAC and Chapter 173-216-110 WAC. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment.

PROHIBITED DISCHARGES

Certain pollutants are prohibited from being discharged to the POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the POTW workers (Chapter 173-216 WAC), and the discharge of designated dangerous wastes not authorized by this permit (Chapter 173-303 WAC).

DILUTION PROHIBITED

The Permittee is prohibited from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limitations.

NONROUTINE AND UNANTICIPATED DISCHARGES

Occasionally, this facility may generate wastewater which is not characterized in their permit application because it is not a routine discharge and was not anticipated at the time of application. These typically are waters used to pressure test storage tanks or fire water systems or leaks from drinking water systems. These are typically clean wastewaters but may be contaminated with pollutants. The permit contains an authorization for nonroutine and unanticipated discharges. The permit requires a characterization of these wastewaters for pollutants and examination of the opportunities for reuse. Depending on the nature and extent of pollutants in this wastewater and opportunities for reuse, Ecology may authorize a direct discharge via the process wastewater outfall, require the wastewater to be placed through the facilities wastewater treatment process or require the water to be reused.

GENERAL CONDITIONS

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to POTW permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending, or terminating the permit. Condition G4 requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5 requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6 prohibits the Permittee from using the permit as a basis for violating any laws, statutes, or regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the Permittee to control production or wastewater discharge in order to maintain compliance with the permit. Condition G10 prohibits the reintroduction of removed pollutants into the effluent stream for discharge. Condition G11 requires the payment of permit fees. Condition G12 describes the penalties for violating permit conditions.

PUBLIC NOTIFICATION OF NONCOMPLIANCE

A list of all industrial users which were in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters may be annually published by the Department in a local newspaper. Accordingly, the Permittee is apprised that noncompliance with this permit may result in publication of the noncompliance.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxic pollutants. The Department proposes that the permit be issued for a period of five (5) years.

REFERENCES FOR TEXT AND APPENDICES

Washington State Department of Ecology.

Laws and Regulations (<http://www.ecy.wa.gov/laws-rules/index.html>)

Permit and Wastewater Related Information
(<http://www.ecy.wa.gov/programs/wq/wastewater/index.html>)

APPENDICES

APPENDIX A—PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page one of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public Notice of Application (PNOA) was published on July 17, 2000, and July 24, 2000, in the *Seattle Times* to inform the public that an application had been submitted and to invite comment on the reissuance of this permit.

The Department will publish a Public Notice of Draft (PNOD) on August 18, 2003, in the *Seattle Times* to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Water Quality Permit Coordinator
WA State Department of Ecology
Northwest Regional Office
3190 – 160th Avenue SE
Bellevue, WA 98008-5452

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30)-day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-216-100). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing.

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone at (425) 649-7025, or by writing to the address listed above.

APPENDIX B—GLOSSARY

Average Monthly Discharge Limitation—The average of the measured values obtained over a calendar month's time.

Best Management Practices (BMPs)—Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD₅—Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD₅ is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass—The intentional diversion of waste streams from any portion of the collection or treatment facility.

Categorical Pretreatment Standards—National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

Compliance Inspection - Without Sampling—A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance Inspection - With Sampling—A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

Composite Sample—A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots).

Continuous Monitoring—Uninterrupted, unless otherwise noted in the permit.

Engineering Report—A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Grab Sample—A single sample or measurement taken at a specific time or over as short a period of time as is feasible.

Industrial User—A discharger of wastewater to the sanitary sewer which is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

Industrial Wastewater—Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business; from the development of any natural resource; or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Interference—A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
- Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent state or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) [including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to Subtitle D of the SWDA], sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Local Limits—Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

Maximum Daily Discharge Limitation—The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Method Detection Level (MDL)—The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

Pass-through—A discharge which exits the POTW into waters of the state in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of state water quality standards.

pH—The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Potential Significant Industrial User—A potential significant industrial user is defined as an industrial user which does not meet the criteria for a significant industrial user, but which discharges wastewater meeting one or more of the following criteria:

- a. Exceeds 0.5 % of treatment plant design capacity criteria and discharges <25,000 gallons per day; or
- b. Is a member of a group of similar industrial users which, taken together, have the potential to cause pass-through or interference at the POTW (e.g. facilities which develop photographic film or paper, and car washes).

The Department may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

Quantitation Level (QL)—A calculated value five times the MDL (method detection level).

Significant Industrial User (SIU)—

1. All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; and
2. Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement [in accordance with 40 CFR 403.8(f)(6)].

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

*The term "Control Authority" refers to the Washington State Department of Ecology in the case of nondelegated POTWs or to the POTW in the case of delegated POTWs.

Slug Discharge—Any discharge of a nonroutine, episodic nature, including but not limited to an accidental spill or a noncustomary batch discharge to the POTW. This may include any pollutant released at a flow rate which may cause interference with the POTW.

State Waters—Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater—That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based Effluent Limit—A permit limit that is based on the ability of a treatment method to reduce the pollutant.